APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/852,526	05/09/2001	Serge Andre Rigori	5181-78500	6364

7590 09/21/2004	EXAMINER	
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P.O. Box 398	ART UNIT	PAPER NUMBER
Austin, TX 78767	2144	

DATE MAILED: 09/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/852,526	RIGORI ET AL.
	Examiner	Art Unit
	Rainier Suazo	2144

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on <u>09 May 2001</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-26</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-26</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on <u>09 May 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All b)☐ Some * c)☐ None of:
      1.☒ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

This application has been examined. Claims 1-26 presented for examination.

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1-6, 9-20, 22, 23, 24 and 26 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Chen et al. (Dynamic-Agents for Dynamic Service Provisioning)

hereinafter referenced to as Chen in view of Howard et al. (U.S. Patent Number

6,601,086) hereinafter referenced to as Howard.

3.   Regarding claims 1-4, 6, 12, 13, 15, 16-20, 22 and 23, Chen disclosed dynamic

agents and dynamic agent infrastructure that supports the dynamic behavior modification

of agents wherein every agent can provide and request services. Chen's invention taught

a resolver, responsive to a request from a requestor for a service to determine whether a

requested service is provided by the service gateway, in the form of a dynamic-agent

named (with the symbolic name) coordinator, which provide naming service with the

distinction that it maintains the agent name registry and, optionally, resource lists. In

addition each dynamic-agent also keeps an address-book recording the addresses of those

dynamic-agents which have become known to it, and are known to be alive. Therefore,

in Chen's disclosure, a dynamic-agent or requestor consults its own address-book and

then the coordinator in order to obtain dynamic-agents (services) availability (page 4

paragraphs 7 and 8). Chen's disclosure taught a negotiator, responsive to an indication from the resolver that a requested service is not provided by the service gateway to query an external source for identifying a further service for attempting to satisfy the service request in, the form a dynamic-agent having an agenda object representing a list of sequential, concurrent or conditional tasks to be executed by the same dynamic-agent. However a task may be sent as a request to another agent, and in this way the agenda can involve other agents (page 3 paragraph 13). Chen also disclosed operational situation requiring a dynamic-agent to contact another agent to locate a corresponding message interpreter class and then load it; Chen thought that similarly, when an agent receives a request to execute a problem-solving program that it does not know about, it will ask the requester, coordinator or resource-manager for its Internet address through messaging, and then load the corresponding class, create and instance, and start its execution (page 5 paragraph 14 and page 6 paragraph 1). Chen's invention taught at least one response engine for processing information provided by the external source in response to the negotiator query, in the form of a mechanisms to trigger modification of agent behavior in the case that the operational situation requires a dynamic-agent to changes its behavior. "For example, when A receives a message with domain-specific content it cannot interpret, it will locate, possibly with help of the coordinator or the sender, the corresponding message interpreter class, and then load this class." Therefore Chen's disclosure depicts a dynamic-agent (acting as a negotiator) receiving a message (information) loading the corresponding message interpreter class (response engine) for processing information provided by an external source (message sender) in response to the negotiator query (the dynamic-agent first request).

4.   Chen taught the invention substantially as claimed. However, Chen did not expressly teach details regarding querying an external source for identifying a further service.

5.   Howard taught a service provider wherein, as defined in claims 1, 2 and 12, the service provider communicates with the information providers via the computer network and provides data to the plurality of embedded devices such that the embedded devices do not communicate directly with the providers and further comprising an information collection manager for searching the computer network and accessing and obtaining updated service information from the computer network, wherein the provider updates computer program code on an embedded device by obtaining updated computer program code via the computer network and by notifying the embedded device of an available update and by further sending the updated computer program code to the embedded device.

6.   Although Chen is silent regarding the details querying an external source for identifying a further service, Chen taught sufficiently interoperability functionalities of dynamic-agents to motivate anyone with ordinary skill in the art to use such functionality to identify additional applications such as searching for additional classes (page 3 paragraph 13, page 4 paragraphs 3 and 4, page 5 paragraph 14, page 6 paragraph 1 and page 7 paragraph 1). Howard also taught motivations to obtain updates from external sources to provided additional information that may be useful for the embedded device or the service provider (column 6 pages 18-36)

7.   It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Chen with the teachings of Howard to add the

functionality of querying external sources for identifying further services to Chen's

dynamic agent infrastructure thus expanding the possible amount of services provided.

8.   Regarding claims 5, 9, 11 and 14, Chen taught a coordinator agent which is used

to provide naming service. Chen taught that when a dynamic agent is created, it will first

attempt to register its symbolic name and address with the coordinator Thereafter it can

communicate with other dynamic-agents by name (page 4 paragraph 7). Chen also taught

interface-like behavior of agents interacting with other agent to solve particular problems

(page 3 paragraph 13 and section 4). Therefore Chen described the dynamic-agents as to

be registered with a coordinator, which holds a record of registered agents (services),

behaves as interface and is registered as a service itself as an agent (service).

9.   Regarding claim 12, Chen taught a resource-broker that maintains a directory of

registered programs and agendas wherein such functionality can be provided by the

coordinator. Chen effectively depicted the of the elements comprising the service

provisioning mechanism within a framework having such elements registered therein

(section 4.1)

10.   Regarding claims 16 and 18, Chen taught the invention substantially as claimed.

However, Chen did not expressly teach details regarding of the gateway system including

at least one interface for connection to an external network and at least one interface for

connection to a local network to which a plurality of devices are connectable.

11.   Howard taught hardware components utilized in an embedded device network and

embodiments therein depicting a "host computer 84 or gateway computer 84 networked

together with one or more embedded devices 24". Therefore describing a configuration

wherein a host computer actuate together with a gateway computer and communicates

with a plurality of embedded devices and which by definition is the entrance point to a

different network (Figure 7, column 9 lines 55-67 and column 10 lines 1-52).

12.   Chen taught motivation to implement the disclosed infrastructure in networked

environments in different ways including: a) the mobility feature of the Dynamic-Agent

Architecture that taught how an agent or an agent-factory can launch or cloned at a local

or remote site (page 4 paragraph 4), b) the Resource-Broker implementation of a

dynamic-agent which in many cases can be a coordinator registering socket addresses

resolvable to TCP/IP addresses which is a protocol commonly used in the art to span

wide area networks; the resource-broker also maps each program to its address, e.g. URL

(Universal Resource Locator) which is also commonly used in the art to describe an

address resolvable to a TCP/IP address (page 7 paragraph 6), c) an exemplary explanation

of Extended Dynamic Service Provisioning with a product-manager dynamic-agent

communicating with the Web Server, this communication typically use TCP/IP (section

5).

13.   It would have been obvious to one of ordinary skill in the art at the time of the

invention was made to combine Chen with the teachings of Howard to reach different

networks and benefit from the extendibility it would provide.

14.   Regarding Claims 10 and 26, Chen taught a dynamic-agent communicating with a

Web Server which is know in the art to provide HTTP documents using TCP/IP,

therefore describing an agent communicating using a predetermined protocol.

15.   Regarding claim 24, Chen taught steps for responding a response from an external

source under predetermined or dynamic conditions (page 5 paragraph 2, page 3 paragraph

13).

16.   Claims 7, 8, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Chen et al. (Dynamic-Agents for Dynamic Service Provisioning) hereinafter referenced

to as Chen in view of Howard et al. (U.S. Patent Number 6,601,0861) hereinafter

referenced to as Howard and further in view of Hofmann et al. (U.S. Patent Application

Publication Number US 2001/039540 A1) hereinafter referenced to as Hofmann.

17.   Chen in view of Howard did not expressively teach the details of attempting to

select a response engine for processing information or interrogating the header of a

response received from an external source to attempt to identify a message protocol for

the response and select a response agent suitable for managing the communication with

the external source.

18.   Hofmann taught a filter server receiving a request for data and retrieving rules to

process such request and data. Hofmann taught in one of the embodiments that the

conversion service 125 sets up a protocol reader 350 in create reader operation 420 to

determine the source data format. Conversion service 125 passes the source data

identifier, or at least a part of the source data identifier to protocol reader 350. Protocol

reader 350 retrieves the format of the source data. Some protocols like HTTP provide a

MIME type directly and so protocol reader 350 simply retrieves the MIME type. For

other protocols, format detection components, which read header information from the

source data file itself, are needed in protocol reader 350. Protocol readers are known to

those of skill in the art. In either case, conversion service 125 receives the format of the

source data corresponding to the source data identifier from protocol reader 350. In

another embodiment, the source data format is an input to conversion service 125. Upon

determining the source data format, in create reader operation 420, processing passes to

an optional create writer operation 420, in one embodiment. At this point, conversion

service 125 knows the target data format. As explained more completely below,

conversion service 125 can transmit the converted data to an importer in a number of

ways. The output data stream from the last partial filter adapter is presented via an event-

based API. Typically, a byte stream printer is needed to convert the data presented via the

event-based API to a byte stream that can be processed by other than an event-based API.

Also, a protocol writer may be needed. Thus, create writer operation 403 creates a byte

stream printer and/or protocol writer, if these components are needed to complete the

filter for the data conversion. If neither of these components is needed, operation 420

transfers processing directly to operation 440 and otherwise operation 430 transfers

processing directly to operation 440. Conversion service 125 calls a chain factory 315

with at least the source data format and the target data format in create filter chain

operation 440. Chain factory 315 calls filter registry service 325 and provides the source

and target formats to service 325. Filter registry service 325 using filter registry 127 finds

a chain of partial filter adapters, which is suitable for the conversion of data from the

source data format to the target data format, e.g., from a first data format to a second data

format. In another embodiment, service 325 finds a chain of filters to transcode the data,

or alternatively to render the data in a different way (Abstract, page 5 paragraphs 4-8 and

figure 3).

19.   Chen provides sufficient explanation regarding the functionalities of dynamic-

agents to interoperate with other agents or programs (page 3 paragraph 13, page 4

paragraphs 3 and 4 and page 7 paragraph 1).

20.   It would have been obvious to one of ordinary skill in the art at the time of the
invention was made to combine Chen in view of Howard with the teachings of Hofmann
interact with other agent to obtain the further functionality of interpreting multiple
formats (protocols) in messages and to use protocol reader known in the art to further
interpret with a suitable (configured to process) chain of partial filter adapters (page 5
paragraph 8) or to locate a Chen's corresponding (configured to process) message
interpreter class and then load it (Chen, page 6 paragraph 1) to obtain the claimed
invention.

21.   Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et
al. (Dynamic-Agents for Dynamic Service Provisioning) hereinafter referenced to as
Chen in view of Howard et al. (U.S. Patent Number 6,601,0861) hereinafter referenced to
as Howard and further in view of Jacobson et al. (U.S. Patent Application Number US
5,440,744) hereinafter referenced to as Jacobson.

22.   Chen taught the invention substantially as claimed. However, Chen did not
expressly teach details regarding a conditional loop.

23.   Jacobson taught a conditional loop with steps to be performed until certain
condition is met which is a technique well known in the art.

24.   Chen taught that the execution of dynamic-agents agendas including conditional
tasks which motivates the exploration of the art using such sort of programming
techniques.

25.   It would have been obvious to one of ordinary skill in the art at the time of the
invention was made to combine Chen in view of Howard with the teachings of Jacobson

to create conditional execution that represent conditional loops to automate repeated

conditional execution of steps.

Conclusion

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

U.S. Patent no. 5,712,903, Batholomew et al. teaches an intelligent peripheral

used with narrowband and broadband type services that may provide protocol conversion

and message translation.

U.S. Patent no. 6,614,784, Glitho et al., teaches a system and method of service

provisioning in a telecommunications network.

U.S. Patent no. 6,115,737 Ely et al. teaches a customer contact services

node/Internet gateway that connects a user to the services and to information from a

provider via the Internet.

U.S. Patent no. 6,115,744, Robins et al. teaches an apparatus and method for use

in a data processing system to connect a client application with a target service program

over a network.

U.S. Patent no. 5,787,403, Randle teaches a banking service platform that enables

bank-centric access and control by a customer at a remote location of financial

information.

U.S. Patent no. 6,647,260, Dusse et al. teaches a system and method for

provisioning a two-way mobile communication device.

U.S. Patent no. 6,178,438, Tschirhart et al. teaches a service management system

for an advanced intelligent network.

Heskett, Sun Unveils Embedded Server 1998, News.com.

Sun Microsystems Delivers Next Generation of Residential Gateway Server

Technology for the Networked Home October, 10 2000, Sun.com.

Specification Overview, January 2000, The Open Services Gateway Initiative,

Version 1.0.

Malek et al, On-Line Provisioning of Network Services, May 1998, IEEE Journal

on Selected Area in Communications, Vol 6, No 4.

U.S. Patent Application Publication no. US 2002/0062334 A1, Chen et al. teaches

Dynamic-Agents for Dynamic Service Provisioning.

U.S. Patent no. 5,870,740 by Rose et al. teaches a system and method for

improving the ranking of information retrieval results for short queries.

U.S. Patent no. 5,754,939 by Herz et al. teaches a system related to customize

electronic identification of desirable objects, the system searches external sources

(providers).

U.S. Patent no. 6,029,203 by Bhatia et al. teaches an apparatus interconnecting

devices in a Local Area Network with multiple remote (external) networks.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rainier Suazo whose telephone number is (571) 272-3931 or (703) 305-3887. The examiner can normally be reached on Monday through Friday, 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Cuchlinski can be reached on (571) 272-3925 or (703) 308-3873. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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